

Transformational Leadership of The Principal in Enhancing Teachers' Digital Literacy at SMP Negeri 3 Lubuklinggau

Vivi Juniarti¹, Sudarwan Danim², Muhammad Kristiawan²

¹Universitas Bengkulu, Bengkulu, Indonesia

Corresponding author e-mail: vivijuniarti81@gmail.com

Article History: Received on 16 September 2025, Revised on 30 September 2025,
Published on 3 February 2026

Abstract: This study provides an in-depth description of the principal's role in enhancing teachers' digital literacy through the application of transformational leadership at SMP Negeri 3 Lubuklinggau. Digital literacy in this research encompasses four aspects: digital competence, digital security, digital culture, and digital ethics. A qualitative case study was employed, with data collected through in-depth interviews, observations, and document analysis. Data were analyzed using reduction, display, and conclusion drawing techniques. The findings indicate that the principal consistently applies the four dimensions of transformational leadership. Idealized influence is reflected in role modeling and integrity; inspirational motivation in moral support, digital-based targets, and recognition; intellectual stimulation in training, innovation, and experimentation; and individualized consideration in tailored guidance. These practices improved teachers' digital literacy, evidenced by diverse digital media use, increased confidence, and collaborative culture. Challenges remain in disparities of competence and low motivation among senior teachers. Recommendations include continuous training, mentoring, improved facilities, and documentation of best practices.

Keywords: Principal's Role, Teachers' Digital Literacy, Transformational Leadership

A. Introduction

Transformational leadership has been widely studied across various fields, including education, management, and organizational contexts, and is recognized as a leadership style capable of driving change and producing positive outcomes (Mudatsir, 2021 ; Asbari et al., 2020). Within schools, transformational leadership is associated with improved teacher motivation, professional growth, and student learning outcomes (Leithwood, Harris, & Hopkins, 2020) (Kamaludin, 2023). Such changes are expected to contribute positively not only to school development but also to regional and even national progress (Rusnati & Gaffar, 2021).

The term digital literacy has been used since the 1990s to describe the ability to interact with information, emerging in line with rapid technological advancement. (Sulianta,

2024) (Naufal, 2021). It is generally defined as the ability to use information and communication technology to locate, evaluate, create, and communicate information, which requires both cognitive and technical skills (Syahrizal & Jailani, 2023).

In the 21st century, digital literacy has become an essential competency for teachers, encompassing not only technical proficiency but also cognitive, social, and ethical dimensions. Thus, digital literacy is an inseparable part of educational transformation, ensuring that instruction remains effective and relevant in a digital society. Given these demands, education must adapt to new challenges. Teachers are expected not only to master digital tools but also to apply them responsibly and creatively. However, in practice, the level of digital literacy among teachers is uneven, particularly in regional schools where infrastructure and leadership support are often limited. This study is motivated by the linkage between the transformational leadership of principals and the enhancement of teachers' digital literacy, especially in junior high schools in regional contexts such as SMP Negeri 3 Lubuklinggau. Although digital infrastructure is available in this school, preliminary observations revealed that its utilization remains suboptimal due to insufficient leadership in empowering teachers digitally.

Trust, loyalty, and respect from followers, clarifies school vision and mission, increases student enrollment, and encourages principals to embed meaningful character values into school culture (Cahyono, 2024). Empirical studies further support this perspective. Principals' success in empowering teachers through training and technology integration fostered innovation and collaboration (Nurananda, 2023), (Nurilahi et al., 2022) highlighted the importance of principals' instructional leadership in strengthening teachers' digital practices. Similarly, emphasized the role of principals as motivators, facilitators, and policy enablers in fostering digital literacy. In line with these findings, principals' effectiveness is often reflected in their ability to plan, conduct seminars, provide motivation and guidance, and involve teachers in continuous digital training. Therefore, the objective of this study is to analyze the extent to which transformational leadership can enhance the utilization of digital infrastructure through teacher empowerment. Beyond practical implications for principals in developing effective strategies, this study also aims to contribute to academic discourse in the fields of educational management and teacher professional development in the digital era.

B. Methods

This study employed a descriptive qualitative case study design, which is considered appropriate for exploring complex leadership practices within a specific school context (Rosmini et al., 2024; Syahrizal & Jailani, 2023). The research was conducted at SMP Negeri 3 Lubuklinggau, South Sumatra, from January to May 2025. The school was purposively selected because it has implemented digital-based learning

programs, yet faces challenges in maximizing teacher digital literacy. The study involved one principal and three teachers, selected through purposive sampling. The teachers represented different grade levels and roles, such as vice principal and head of a learning community, making them relevant informants for understanding leadership practices in enhancing digital literacy. The data consisted of both primary and secondary sources. Primary data were obtained from in-depth interviews and participant observations with the principal and teachers, while secondary data included school documents such as curriculum, organizational structure, teacher-student records, and archives of training activities. Data collection techniques included: (1) Observation to capture the principal's leadership activities in natural settings, (2) Semi structured interviews to explore the perspectives, experiences, and strategies of the principal and teachers, (3) Documentation such as meeting minutes, school reports, and photographs to strengthen data triangulation.

Data analysis followed Miles and Huberman's interactive model (1994), consisting of: (1) data reduction, namely selecting and simplifying relevant information from observations, interviews, and documentation; (2) data display, presenting the information in descriptive narratives to facilitate interpretation; and (3) conclusion drawing and verification, which involved continuous review of findings, identification of recurring patterns, and formulation of theoretical explanations regarding the role of transformational leadership in enhancing teachers' digital literacy. To ensure the rigor of the study, several strategies were implemented. Source triangulation was applied by comparing information obtained from interviews, observations, and documents. Method triangulation was used by combining different techniques of data collection, while member checking was conducted by confirming the accuracy of findings with participants. These procedures were intended to enhance the credibility, transferability, dependability, and confirmability of the research.

C. Results and Discussion

The findings of this study show that the principal of SMP Negeri 3 Lubuklinggau consistently applied the four dimensions of transformational leadership in enhancing teachers' digital literacy. Data were obtained from interviews, observations, and documentation, which reveal how leadership practices translated into concrete actions and their impacts on teachers.

Idealized Influence

The principal demonstrated integrity and acted as a role model in adopting technology. He prioritized ICT development by allocating school budgets to procure computers, Chromebooks, and internet facilities, and integrated digital literacy into the School Work Plan (Rencana Kerja Sekolah). A teacher explained: "The principal

always emphasizes that we cannot avoid technology, and he himself often uses digital platforms in meetings” (Interview, Teacher MI). These efforts encouraged teachers to follow his example, though disparities in digital competence remained a challenge.

Inspirational Motivation

Motivation was fostered by articulating a clear vision of digital-based learning and by recognizing teacher achievements. Certificates of appreciation and exposure of innovative teaching on social media boosted teachers’ confidence. One teacher remarked: “When our work was shared on the school’s Instagram, I felt proud and more motivated to try new digital platforms” (Interview, Teacher DW). However, some senior teachers were still less adaptive, indicating the need for differentiated motivation strategies.

Intellectual Stimulation

The principal organized training programs such as Google Workspace for Education, Canva, Quizizz, and YouTube integration, while also encouraging experimentation with other platforms like Google Classroom and Wordwall. Teachers were invited to explore new approaches and reflect critically on digital ethics and responsible use. As stated by the principal: “I want teachers not only to use technology but also to be wise and ethical in guiding students in the digital world” (Interview, Principal). Despite these initiatives, reluctance among certain teachers due to limited skills and age-related challenges remained.

Individualized Consideration

The principal provided personal mentoring and delegated younger, digitally skilled teachers to act as peer mentors. Informal conversations and emotional support created a more inclusive environment for professional growth. A teacher commented: “Sometimes when I get stuck, the principal himself helps or connects me with younger colleagues who are more skilled” (Interview, Teacher S). This approach strengthened collaboration, although irregular mentoring sessions limited consistent support for all teachers.

Overall, the leadership practices contributed to teachers’ increased confidence, broader use of digital tools in teaching, and the growth of a collaborative digital culture within the school. Nonetheless, key challenges identified were disparities in digital competence and low motivation among senior teachers.

Table 1. Transformational Leadership Practices in Enhancing Digital Literacy

Leadership Behavior	Evidence from Data	Impact/Challenge
Idealized Influence	Budgeting ICT facilities, modeling digital practices	Improved role modeling; uneven teacher competence
Inspirational Motivation	Vision sharing, recognition, social media appreciation	Higher motivation; low adaptation among senior staff
Intellectual Stimulation	Training, experimentation, emphasis on ethics	Expanded skills; reluctance from less skilled staff
Individualized Consideration	Mentoring, peer support, informal guidance	Stronger collaboration; inconsistent mentoring

Discussion

The findings of this study confirm that transformational leadership is a critical factor in enhancing teachers' digital literacy. The principal of SMP Negeri 3 Lubuklinggau consistently applied the four dimensions of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration to improve teachers' competence in digital tools, ethics, culture, and security.

Idealized Influence

The principal's role modeling and investment in ICT resources aligned with Cahyono (2024), who noted that transformational leaders clarify vision and inspire trust by embodying desired behaviors. Similarly, Leithwood, Harris, and Hopkins (2020) emphasized that successful leaders act as role models for professional change. In this study, teachers were motivated to adopt digital platforms after observing the principal's consistent use of technology. However, the uneven digital skills among teachers revealed that infrastructure and role modeling alone are insufficient without sustained capacity-building programs.

Inspirational Motivation

By articulating a vision of digital transformation and recognizing teacher achievements, the principal boosted morale and engagement. This supports Efendi, Sunaryo, and Harijanto's (2023) findings that motivation and recognition are key to teacher performance. However, resistance among senior teachers illustrates a limitation of one-size-fits-all motivation strategies. As highlighted in change management literature, lasting change requires differentiated approaches to address diverse levels of readiness among staff. This suggests that principals need to adapt motivational strategies to the varying needs of teachers, particularly those less digitally inclined.

Intellectual Stimulation

Training programs and opportunities for experimentation reflected the essence of intellectual stimulation, where leaders encourage creativity and critical thinking. This finding is consistent with Nurilahi et al. (2022), who found that professional development initiatives support digital innovation in schools. A notable addition in this study is the explicit emphasis on digital ethics, highlighting that transformational leadership not only advances technical competence but also cultivates responsible digital citizenship. This broadens the application of transformational leadership theory in the context of digital change.

Individualized Consideration

Personal mentoring and peer support provided by the principal resonate with Rosmini et al. (2024), who argued that empathy and differentiated support foster teacher growth. This study showed that informal guidance-built trust and collaboration, although irregularity in mentoring reduced its overall impact. The finding underscores the importance of systematic mentoring frameworks, aligning with professional development literature that stresses continuous and structured support.

Theoretical Implications

This case study contributes to transformational leadership theory by showing how its dimensions operate in the context of digital transformation in schools. The findings extend the theory by highlighting the importance of integrating digital ethics, culture, and security into leadership practices, which are often underexplored in previous studies.

Practical Implications

For school principals, this study provides actionable lessons: (1) consistently model digital practices to inspire adoption, (2) implement differentiated motivational strategies to engage reluctant teachers, (3) integrate digital ethics into professional development, and (4) establish structured mentoring systems to ensure sustainable capacity building.

D. Conclusion

This study set out to explore how transformational leadership was applied by the principal of SMP Negeri 3 Lubuklinggau to enhance teachers' digital literacy. The findings demonstrate that the principal consistently implemented the four dimensions of transformational leadership. Idealized influence was shown through role modeling and investment in digital infrastructure, inspirational motivation through vision

building and recognition, intellectual stimulation through training and encouragement of innovation, and individualized consideration through mentoring and differentiated support. Collectively, these practices increased teachers' confidence, expanded the use of digital media in teaching, and fostered a collaborative digital culture, although disparities in skills and reluctance among senior teachers persisted. Theoretically, this study extends the application of transformational leadership theory by demonstrating its relevance to digital transformation in schools and by emphasizing its role in advancing not only digital competence but also digital ethics, culture, and security dimensions rarely examined in previous research. Practically, the study offers guidance for school principals, highlighting the need for consistent role modeling, differentiated motivation strategies, systematic mentoring, and integration of digital ethics in professional development. As a single case qualitative study, the findings are context specific and have limited generalizability. Researcher bias may also influence interpretation despite the use of triangulation and member checking. Recommendations for Future Research. Further studies could employ quantitative or mixed method approaches to test the relationships identified here on a larger scale. Multi-case studies across different regions and school levels would also provide comparative insights into how transformational leadership supports digital literacy in diverse contexts.

E. Acknowledgements

We would like to express sincere gratitude to the principal and teachers of SMP Negeri 3 Lubuklinggau who have provided valuable support, cooperation, and openness throughout the research process. Deep appreciation is also extended to the academic advisors and lecturers of the Master of Educational Administration Program, Faculty of Teacher Training and Education, University of Bengkulu, for their guidance, constructive feedback, and encouragement. Finally, heartfelt thanks are given to family and colleagues who have continuously provided motivation and support during the completion of this study.

References

- Akbar, A. (2021). The importance of teacher pedagogical competence. *JPG: Jurnal Pendidikan Guru*, 2(1), 23. <https://doi.org/10.32832/jpg.v2i1.4099>
- Asbari, M., Fayzhall, M., Goestjahjanti, F. S., Winanti, Yuwono, T., Hutagalung, D., Basuki, S., Maesaroh, S., Mustofa, Chidir, G., Yani, A., & Purwanto, A. (2020). The role of transformational leadership and learning organization on school innovation capacity. *EduPsyCouns: Journal of Education, Psychology and Counseling*, 2(1), 6724-6748. <https://ummaspul.e-journal.id/Edupsycouns/article/view/421>
- Cahyono, N. D. (2024). Enhancing Organizational Effectiveness through

- Transformational Leadership: A Comprehensive Analysis. *Global International Journal of Innovative Research*, 2(8), 1794–1804. <https://doi.org/10.59613/global.v2i8.270>
- Cherian, A. R., & Bhaumik, A. (2023). Transformational leadership and teacher work motivation (A review of the existing literature). *International Journal of Interdisciplinary*, December.
- Diannita, A. (2021). The influence of principal's transformational leadership style and organizational culture on the work ethic of public elementary school teachers in Ciputat Timur District, South Tangerang City. *Journal IKLILA: Jurnal Studi Islam dan Sosial*, 4(2), 1–20.
- Efendi, F., Sunaryo, H., & Harijanto, D. (2023). The effectiveness of principal's transformational leadership through work commitment on teacher performance in independent learning. *Jurnal Akuntabilitas Manajemen Pendidikan*, 11(2), 19–32. <https://doi.org/10.21831/jamp.v11i2.60605>
- Kamaludin, K. (2023). The principal as a change leader in empowering school communities. *Jurnal Wahana Pendidikan*, 10(2), 249. <https://doi.org/10.25157/jwp.v10i2.11309>
- Kusumawati, H., Wachidah, L. R., & Cindi, D. T. (2021). The impact of digital literacy on improving teacher professionalism in teaching and learning activities. *Prosiding Seminar Nasional Pendidikan Matematika (SENSIKDA-3)*, 3, 158.
- Lamirin, Santoso, J., & Selwen, P. (2023). The application of transformational leadership strategies in improving the performance of educational organizations. *Jurnal Ilmiah Kanderang*, 14(2), 400–409. <https://doi.org/10.37304/jikt.v14i2.259>
- Leithwood, K., Harris, A., & Hopkins, D. (2020). Seven strong claims about successful school leadership revisited. *School Leadership and Management*, 40(1), 5–22. <https://doi.org/10.1080/13632434.2019.1596077>
- Lestari, A. K. (2021). Digital literacy as a countermeasure against the Covid-19 infodemic: A literature review. *Angewandte Chemie International Edition*, 6(11), 951–952.
- Maharani, S. (2023). The influence of principal's transformational leadership based on self-efficacy in improving the performance of MIN 12 Medan teachers. *Jurnal Generasi Indonesia*, 1(1), 5–10. <https://doi.org/10.47709/geci.v1i1.2322>
- Mardizal, J., Handayani, E. S., Ghazali, A., Al Haddar, G., Anggriawan, F., & Arifudin, O. (2023). Transformational, visionary, and authentic leadership models of school principals in improving education quality in the 4.0 era. *Innovative: Journal of Social Science Research*, 3(5), 2994–3003. <https://j-innovative.org/index.php/Innovative/article/view/5195>

- Mariscal, L. L., Albarracin, M. R., Mobo, F. D., & Cutillas, A. L. (2023). Pedagogical competence towards technology-driven instruction in basic education. *International Journal of Multidisciplinary: Applied Business and Education Research*. <https://doi.org/10.11594/ijmaber.04.05.18>
- Mudatsir, M. (2021). Transformational leadership of school principals in improving graduates' quality. *Educational Journal of Islamic Management*, 1(2), 55–67. <https://doi.org/10.47709/ejim.v1i2.1192>
- Nafisatur, M. (2024). Research data collection methods. *Metode Pengumpulan Data Penelitian*, 3(5), 5423–5443
- Naufal, H. A. (2021). Digital literacy. *Perspektif*, 1(2), 195–202. <https://doi.org/10.53947/perspekt.v1i2.32>
- Nurananda. (2023). *Transformational leadership strategies of school principals in education digitalization (Case study at SMP Al-Hasra and SMP Islam)*. UIN Jakarta Repository. [https://repository.uinjkt.ac.id/dspace/bitstream/123456789/73987/1/NURANANDA 21210181000011.pdf](https://repository.uinjkt.ac.id/dspace/bitstream/123456789/73987/1/NURANANDA%2021210181000011.pdf)
- Nurilahi, A., Hidayati, D., Hidayat, A., & Usmar, R. J. (2022). Instructional leadership in enhancing teachers' digital literacy. *Jurnal Pendidikan Tambusai*, 6(1), 441–448.
- Rosmini, H., Ningsih, N., Murni, M., Adiyono, A., Stit, I., Rusyd, T., Grogot, K., & Timur, I. (2024). School principals' transformational leadership in the digital era: Technology-based administrative strategies in junior high schools. *Konstruktivisme: Jurnal Pendidikan dan Pembelajaran*, 16(1), 165–180. <https://doi.org/10.35457/konstruk.v16i1.3451>
- Rusnati, I., & Gaffar, M. F. (2021). Implementation of Principal's Digital Leadership in Communication and Teacher Professional Development at School. *Proceedings of the 4th International Conference on Research of Educational Administration and Management (ICREAM 2020)*, 526(Icream 2020), 90–95. <https://doi.org/10.2991/assehr.k.210212.018>
- Setiani, N. N., & Barokah, N. (2021). The urgency of digital literacy in preparing elementary school students towards the golden generation of 2045. *Prosiding SEMAI: Seminar Nasional*, 411–427. <https://proceeding.uingusdur.ac.id/index.php/semai/article/view/400>
- Sugianto, E. (2024). The influence of principal's transformational leadership on teacher performance. *Tsaqofah*, 4(5), 3415–3421. <https://doi.org/10.58578/tsaqofah.v4i5.3291>
- Sulianta, F. (2024). Literature Review on Choosing Digital Literacy Tools for Social Studies Education in the Digital Age. *Advances in Social Science, Education and Humanities Research*, 812, 219–229. <https://doi.org/10.2991/978-94-6463-608-6>

- Syahrizal, H., & Jailani, M. S. (2023). Types of research in quantitative and qualitative studies. *Jurnal QOSIM Jurnal Pendidikan Sosial & Humaniora*, 1(1), 13–23. <https://doi.org/10.61104/jq.v1i1.4>
- Turnip, R. S. (2023). Improving digital literacy among students: Introduction and practice of using educational technology. *Jurnal Review Pendidikan dan Pengajaran*, 6(4), 2302–2310.
- Wahyuningsih, S. (2021). *Digital literacy module in elementary schools*. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, 1–22.
- Windasari, W., Roesminingsih, E., & Trihantoyo, S. (2022). The influence of principal's transformational leadership on organizational change in elementary schools. *Kelola: Jurnal Manajemen Pendidikan*, 9(1), 99–110. <https://doi.org/10.24246/j.jk.2022.v9.i1.p9>